Does longitudinal Twitter use complement all anatomy learning? A comparison between two cohorts

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Background

Students of today's generation are regularly using social media to access and learn anatomical information[1]. To avoid losing the skill of engaging with students, anatomy educators have been increasing their efforts to use popular social media sites such as Facebook to support their student's learning[2].

At the University of Southampton, a Twitter hashtag (#nlm1soton) was created for Year 1 medical students completing the nervous & locomotor 1 (NLM1) anatomy course.

This was an attempt to offer a learning support tool to Year 1 students, since a similar Twitter hashtag (#nlm2soton) had previously, been successfully used to support Year 2 medical students during the difficult nervous & locomotor 2 (NLM2) anatomy course, which covers head, neck and neuroanatomy. #nlm2soton was reported to enhance communication, boost morale and create a supportive network amongst students and educators[3].

Aim

To investigate whether the benefits of using Twitter are transferable across student cohorts studying different anatomy topics.

Methods

Participants:
Cohort 1 = 189 Year 1 medical students on the NLM1 anatomy course (6 weeks).
Cohort 2 = 197 Year 2 medical students on the NLM2 anatomy course (14 weeks).
Procedure: We created and monitored the use of 2 Twitter hashtags feeds (#NLM1SOTON and #NLM2SOTON), both of which were displayed via a widget on the appropriate course page of the University's Virtual Learning Environment (Figure 1 & 2). At the end of both courses, each cohort of students were invited to complete a Likert-scale style questionnaire about their use of the respective hashtags, how frequently they did so and their opinions on the usefulness of the hashtags for aspects of anatomy learning.
Analysis: Student questionnaire responses from both cohorts were compared using non-parametric Mann-Whitney U tests.

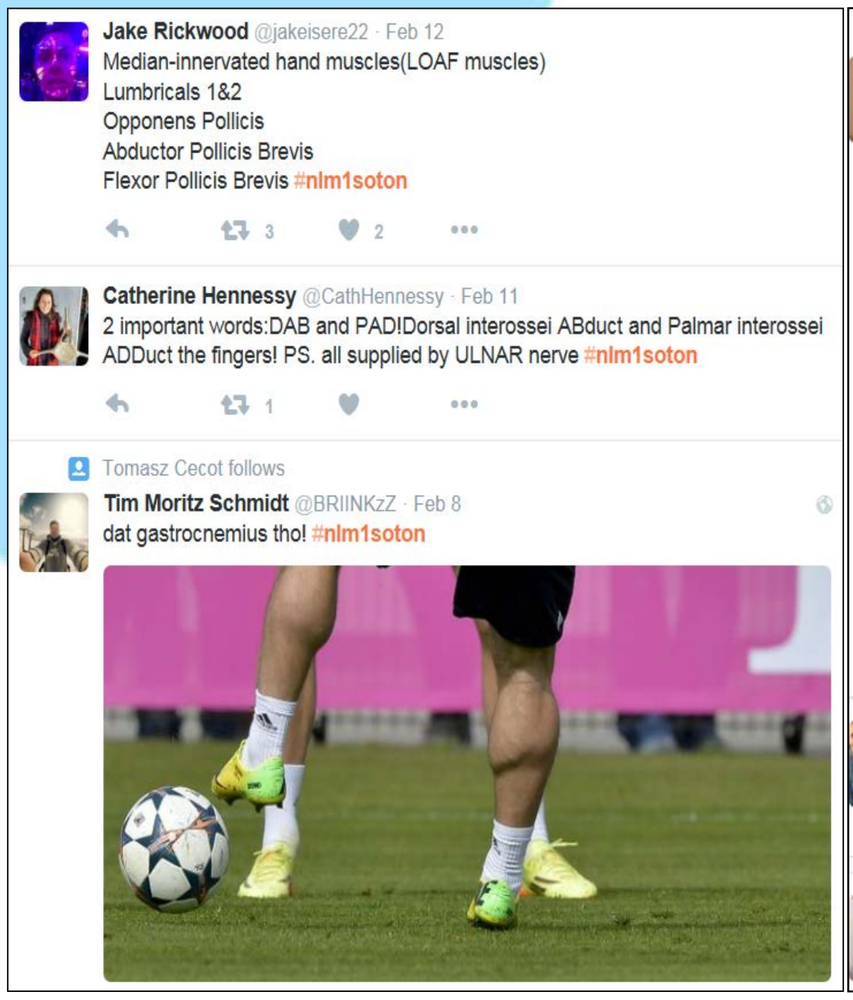

Figure 1: Sample of Cohort 1 student tweets on the #NLM1SOTON feed.

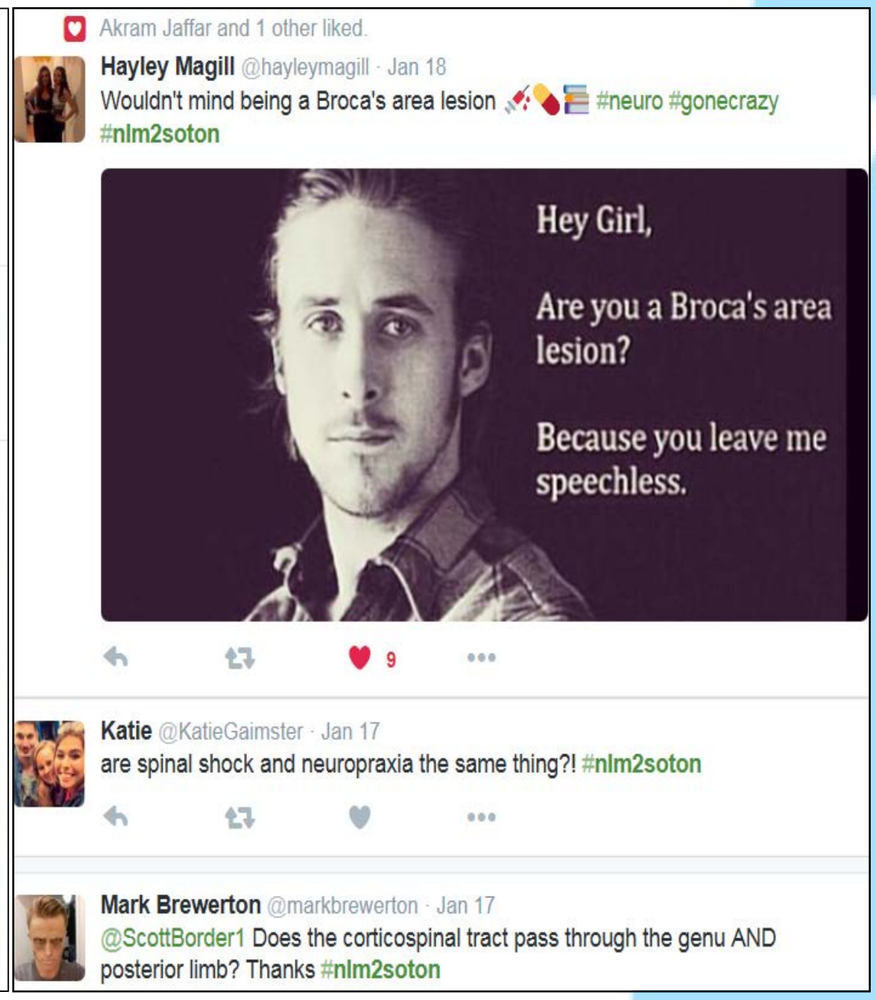

Figure 2: Sampled of Cohort 2 student tweets from the #NLM2SOTON feed.

Results

Year 2 students viewed ($P < 0.0001$) and contributed ($P < 0.0002$) to Twitter significantly more frequently than Year 1 students.

This was particularly true for students who were <20 years old ($P < 0.0001$). There was no significant difference in how frequently students who were >20 years old made contributions to the hashtags ($P = 0.1055$).

Overall, Year 2 students perceived their #nlm2soton hashtag to be significantly more useful for aspects of learning, compared to the Year 1 cohort (Figure 3).

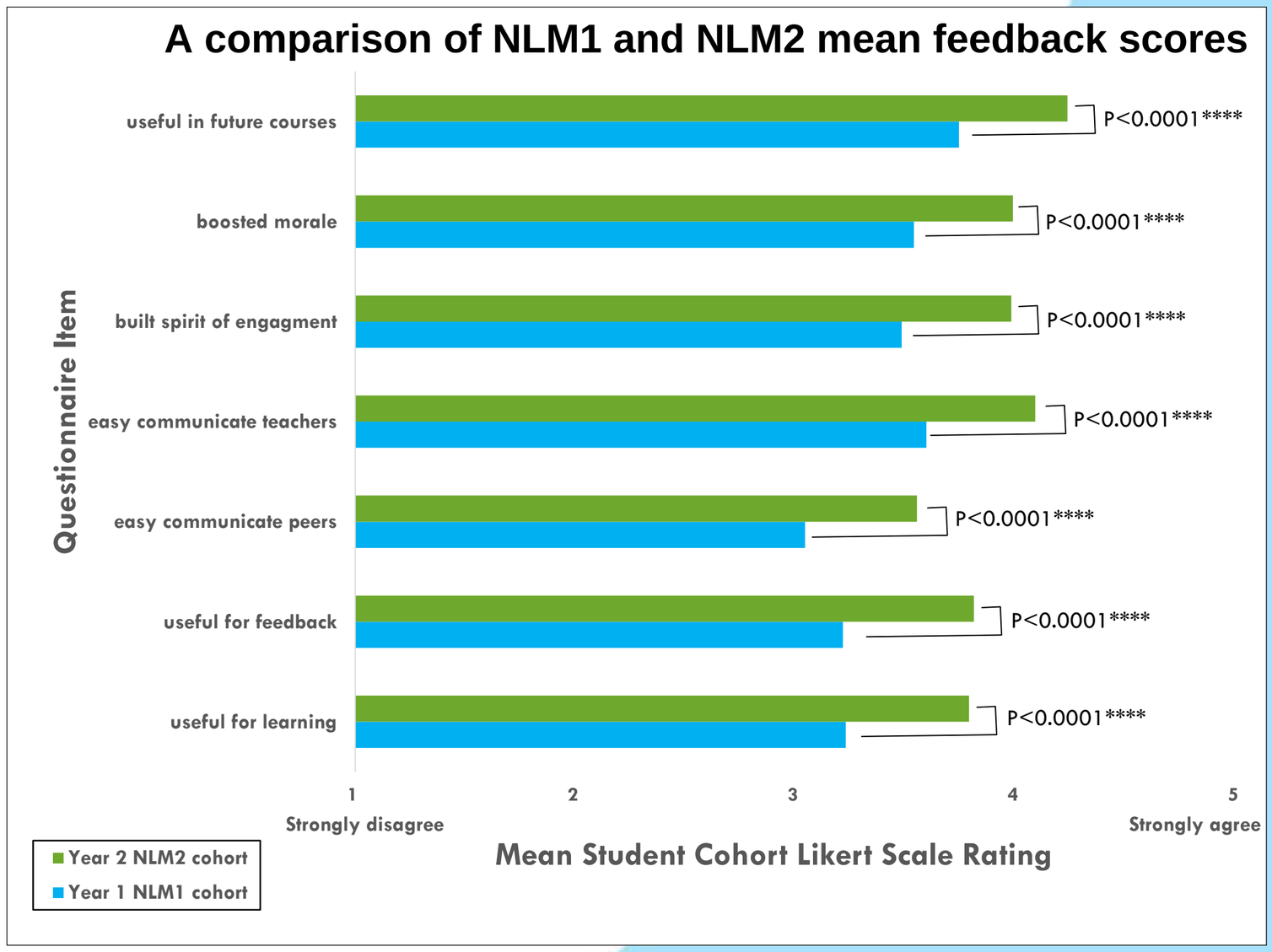

Figure 3: A comparison between the mean Likert scale ratings of both cohorts regarding how useful students perceived the hashtags for various aspects of learning, as a asked via the questionnaire.

References

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Conclusions

This study found that Year 1 medical students were less receptive to Twitter use in learning anatomy and used the hashtag significantly less often than their Year 2 counterparts. This would suggest that the optimal use of longitudinal Twitter use in anatomy education is most probably dependent on a number of criteria. Preliminary evidence suggests that important variables to consider may include age of students, module length, module difficulty and teacher engagement.